WHAT IS CLAIMED IS:

1. A packet communication method for transmitting a packet being added a first capsule header used to compose a closed network in a first communication network, the packet having a header to a second communication network, said packet communication method comprising the steps of:

receiving the packet;

generating a second capsule header used to compose a closed network in the second communication network based on information both in the header and in the first capsule header; and

replacing the first capsule header with the second capsule header, whereby a closed network extending the first communication network and the second communication network is composed.